#### COMMONWEALTH OF KENTUCKY

#### BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF CUMBERLAND FALLS
HIGHWAY WATER DISTRICT FOR (1) A
CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY TO CONSTRUCT EXTENSIONS
AS DESCRIBED; (2) AUTHORITY TO BORROW
APPROXIMATELY \$403,000 FROM FARMERS
HOME ADMINISTRATION; (3) AUTHORITY TO
REFUND EXISTING FMHA INDEBTEDNESS;
(4) A RATE INCREASE EFFECTIVE
NOVEMBER 20, 1985

CASE NO. 9451

## ORDER

The Cumberland Falls Highway Water District ("Cumberland Falls") by application filed October 29, 1985, is seeking a certificate of public convenience and necessity for a \$903,000 waterworks improvements project, the refinancing of \$298,000 of existing debt, adjustments to water service rates and approval of a \$1,013,000 plan of financing composed of \$963,000 Farmers Home Administration ("FmHA") funds (\$403,000 loan and \$560,000 grant), a \$5,000 grant from the Cumberland Valley Area Development \$45,000 applicants for water service. District and from Cumberland Falls is a non-profit water utility engaged in the distribution and sale of water to approximately 738 customers in Whitley County, Kentucky.

Cumberland Falls proposed an increase in rates to produce additional operating revenue of \$65,965. After the adjustments and determination herein, Cumberland Falls is granted authority to

increase rates to produce additional operating revenue of \$28,544 or 12.7 percent, in addition to issuance of a Certificate of Public Convenience and Necessity to Construct, and approval of both financing arrangements.

The construction proposed by Cumberland Falls will extend service to about 121 applicants located on the west side of I-75 between Corbin and Williamsburg. The construction plans and specifications prepared by Vaughn and Melton, Consulting Engineers of Middlesboro, Kentucky, ("Engineer") have been approved by the Division of Water of the Natural Resources and Environmental Protection Cabinet.

A hearing was held in the offices of the Public Service Commission in Frankfort, Kentucky, on March 27, 1986. The Utility and Rate Intervention Division of the Attorney General's Office whose November 27, 1985, Motion for Full Intervention had been sustained was an active participant in the proceedings.

As the hearing was closed, Cumberland Falls was directed to file certain items of additional information. This information has been filed and the matter is considered to be fully submitted for final determination by the Commission.

## Staff Audit Report

To simplify the regulatory process for this small utility, the Commission staff performed a limited financial audit for the utility's test year to verify reported expenditures and substantiate the propriety of the test-year financial statements. The staff report was made a part of the record in this case as an appendix to the Commission's Order of March 24, 1986.

A revised staff audit report containing an adjusted financial statement due to information obtained at the hearing was made a part of the record in this case as an appendix to the Commission's Order of April 4, 1986. This adjusted financial statement has been used as the basis for determining the rate increase. No comments on the staff audit report were filed by any of the parties of record; therefore, the Commission considers the audit report as acceptable for rate-making purposes.

# ADJUSTMENTS TO EXPENSES FOR RATE-MAKING PURPOSES

Cumberland Falls proposed, and the Commission accepts, the 12-month period ending July 31, 1985, as an appropriate test period for determining the reasonableness of the proposed rates.

The Commission has made, for rate-making purposes, the following modifications to the adjusted financial statement of Cumberland Falls per the revised staff audit report, to reflect more normal and current operating conditions.

## Operating Revenue

cumberland Falls' actual operating revenue from metered water sales for the test year was \$185,255. On October 18, 1985, Cumberland Falls was permitted to increase the rates it could charge in Case No. 9417, which were not clearly reflected in the proposed adjusted level. Therefore, the Commission has adjusted test-period operating revenue from metered sales by \$6,635, which results in an adjusted test period level of \$191,890.

Purchased Water Adjustment of Cumberland Falls Highway Water District, dated October 18, 1985.

Cumberland Falls proposed a pro forma adjustment of \$33,530 to test period operating revenue from metered water sales to reflect the additional revenue from new customers. Cumberland Falls calculated its proposed adjustment by using an estimated new 130 customers, an average monthly consumption, and its rates in effect during the test year. Cumberland Falls' engineering witness testified that there would be 137 new customers, and that 21 of these new customers were already connected to the system and received water service during the entire test year. 2 Therefore, an additional 116 customers was used to determine the revenue impact of the proposed construction. We have recalculated this adjustment, using Cumberland Falls' per customer average monthly water usage schedule and the rates that were granted in Case No. The resulting adjustment of \$32,698 is a decrease of \$832 over Cumberland Falls' proposed adjustment. Therefore, the previously adjusted operating revenue from metered water sales of \$191,890 has been increased by \$32,698 to arrive at an adjusted level of \$224,588.

## Purchased Water Expense

Cumberland Falls' actual purchased water expense for the test year was \$62,563. Since the test-year water sales were normalized to reflect the purchased water adjustment, we have normalized the purchased water expense. The purchased water expense proposed by the applicant has been decreased by \$749 due

Hearing Transcript, March 27, 1986, pp. 99-101.

to these normalizations and the maximum 15 percent allowed line loss.

Cumberland Falls proposed a pro forma adjustment of \$11,188 to test-year operating expenses to reflect the additional purchases required to serve the new customers. Cumberland Falls based its computation on 130 customers, but the Commission has recalculated this adjustment to be \$9,239 using the revised number of 116 additional customers. Thus, the allowed increase to test-year water sales is \$8,490.

## Pumping Expenses

Station for the control of this station plus all operating expenses associated with this station should be removed from the test year operations for rate-making purposes to reflect normal operations.

The electricity purchased for pumping at Beck's Creek is provided by Kentucky Utilities ("KU"). For the test year, the total electric expense for Beck's Creek was \$604. Since the plant was abandoned, the monthly bill from KU at that location has dropped to a minimum bill of \$4.20 per month. Therefore, this

Hearing Transcript, March 27, 1986, p. 103.

expense has been decreased by \$554 to reflect normal operations in the future.

Cumberland Falls proposed a pro forma adjustment to increase total pumping expenses by \$690 based upon the anticipated usage of 130 new customers. The Commission agrees with the methodology used for this adjustment; however, it has been recalculated using the actual number of additional new customers of 116 instead of 130 and reducing the power expense as mentioned above before computing the adjustment. Therefore, a pro forma adjustment of \$418 has been included herein to reflect the cost associated with 116 new customers. The net effect of all the aforementioned adjustments results in a decrease in total pumping expenses of \$136.

## Regulatory Commission Expense

During the test year engineering consultants billed Cumberland Falls \$4,122 for expenses associated with preparation of the application in this case. These items were reclassified in the staff audit report and amortized over 3 years. On March 20, 1986, Cumberland Falls filed a revised amount for the total expenses associated with the application. The total revised amount including the amounts originally expensed during the test year is \$19,031.

Cumberland Falls entered into a contract with Howard K. Bell Consulting Engineers, Inc., ("HKB") to provide services for special projects in addition to providing monthly management and accounting services. HKB billed Cumberland Falls \$450 per month plus \$4.50 per month per customer billed for management and

accounting services provided during the test year. In addition, the contract states that all labor for special projects provided by HKB will be multiplied by a 2.5 contract multiplier. It is the Commission's opinion that this contract multiplier is unreasonable especially since Cumberland Falls utilizes HKB's monthly services. Cumberland Falls should renegotiate its contract with HKB to eliminate the contract multiplier.

For rate-making purposes, the Commission has disallowed the contract multiplier in addition to disallowing the estimated portion of the total expenses. Thus, the total allowable rate case expense is \$6,225. This expense has been amortized over 3 years which results in an annual expense of \$2,075, or \$285 more than the reported test year expense.

## Depreciation Expense

cumberland Falls proposed a pro forma adjustment of \$25,325 as depreciation expense on the total estimated cost of the proposed construction. The depreciation expense per the audit report included depreciation on Beck's Creek which has been abandoned. Therefore, the annual depreciation expense for Beck's Creek of \$175 has been excluded for rate-making purposes. In addition, the total original cost of Beck's Creek of \$7,000 has been removed from plant-in-service and the Contributions in Aid of Construction Account has been decreased by \$3,703 to reflect the contributed funds received towards the cost of Beck's Creek.

Plant-in-service has been increased by \$15,528 to include the items capitalized in the staff audit report. The depreciation

expense on these items was included in adjusted depreciation expense in the audit report.

The Commission is of the opinion that the customers should pay depreciation expense only on non-contributed property and has, therefore, excluded \$12,313 of the annual depreciation expense per the audit report based upon the aforementioned items.<sup>4</sup>

In determining the depreciation expense on the plant additions requested in this case, Cumberland Falls included in its cost of the total construction project \$65,000 which was designated for the refinancing of the existing debt. No explanation has been provided by Cumberland Falls as to why this amount would relate to the projected investment in new plant. The record reflects that the refinancing of existing bonds is to be funded through a new bond issue in the amount of \$298,000. Therefore, the Commission has not included this amount in determining the adjusted depreciation expense.

Cumberland Falls filed a revised estimate for the proposed construction on April 9, 1986, after its April 3, 1986, bid opening. The low bid for the project is \$540,165, \$207,035 less

Depreciation Expense per the Audit Report
Less Depreciation for Beck's Creek

Times Percentage of Adjusted Contributed
Property to Total Plant

Disallowed Portion of Existing Depreciation
Expense

\$20,460

<a href="mailto:times.com/s20,285">
\$20,285</a>

\$20,285

\$20,285

\$20,285

than the Engineer's estimate. In addition, the total estimated engineering expenses have decreased by \$21,000.

Cumberland Falls adjusted the contingency fees so that the total cost of the project would still match the \$1,013,000 financing amount available. Cumberland Falls plans to construct additional extensions and improvements with the excess available funds which will result in additional customers and more operating revenue. Cumberland Falls did not propose an adjustment to revenue to reflect these additional customers. The Commission is of the opinion that depreciation expense should not be allowed on the total \$1,013,000 financing arrangement because there is no matching of additional revenue generated from these new customers and the associated depreciation expense.

Cumberland Falls estimated the interest expense during construction to be \$35,000, 4.684 percent of the Engineer's estimated construction cost. Due to the decrease in construction costs, this expense has been recalculated to be \$25,301.

During the hearing on March 27, 1986, the engineering witness concurred that half of the preliminary engineering report should be reclassified from expenses associated with the preparation of the application to the total construction project cost. After including the \$1,250 for the preliminary engineering report, excluding the \$65,000 for refinancing the existing debt, using the actual construction costs, and lowering the interest

<sup>5</sup> Interest During Construction: \$540,165 X 4.684% = \$25,301.

expense during construction, the revised total construction project cost is \$706,516.6

cumberland Falls calculated the pro forma depreciation expense using a 2.5 composite depreciation rate on \$1,013,000, the estimated project cost. The Commission is of the opinion that the depreciation expense on the proposed construction can be more accurately computed by using the estimated useful lives of the components of the construction project instead of a composite rate. Therefore, the depreciation expense has been recalculated using the revised construction costs and the actual useful lives contained in Cumberland Falls' depreciation schedule, resulting in depreciation expense of \$22,462 on the proposed construction.

Since the Commission is of the opinion that the customers shall pay depreciation expense only on non-contributed property, the Commission has disallowed \$13,376 of the pro forma depreciation expense based upon the percentage of contributed funds to total funds needed for the construction project.

Due to all the aforementioned adjustments, the test-year depreciation expense has been decreased by \$3,402 to \$17,058.

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	Total Construction Project Cost:	
	Preliminary Engineering Report	\$ 1,250
	Engineering (Design)	50,000
	Engineering (Inspection)	28,060
	Legal and Administrative	10,000
	Interest During Construction	25,301
	Contingency	51,800
	Construction Cost per Low Bid	540,165
		\$706,516

# Operations Contract

Cumberland Falls proposed a pro forma adjustment of \$3,927 to reflect revisions of salaries and wages occurring during the test year and a scheduled increase in the billing and management fees. Cumberland Falls' adjustment was based upon the average percentage increase in salaries and wages of the employees of East Knox County Water District ("East Knox"). The salaries and wages increase was effective November 1, 1984.

The Commission is of the opinion that an adjustment should be made based upon the estimated number of additional customers times the fee per month per customer billed since this is the billing method used by HKB and reflects the actual cost of Cumberland Falls. Therefore, a pro forma adjustment of \$6,264 has been included herein to reflect the increased cost due to the additional customers.<sup>7</sup>

During the March 27, 1986, hearing Willis Jackson, a Financial Analyst with HKB, stated that the average percentage increase in the salaries and wages of East Knox, per the application, had been recomputed from 5.76 percent to 8.49 percent. 8 Therefore, based upon HKB's billing procedures of passing through the actual East Knox transmission and distribution labor expenses to Cumberland Palls, this expense for the first 3 months of the test year has been increased by 8.49 percent, or \$409. The total

<sup>7 116</sup> additional customers X \$4.50 per month X 12 months = \$6,264.

<sup>8</sup> Hearing Transcript, March 27, 1986, p. 72.

pro forma adjustment allowed due to the increase in expenses of the operations contract is \$6,673.

After consideration of the aforementioned adjustments, the Commission finds Cumberland Falls' test year operations to be as follows:

	Test Year Actual Per Audit Report	Commission Adjustments	Adjusted Test Year
Operating Revenues	\$190,699	\$39,333	\$230,032
Operating Expenses	187,829	11,910	199,739
Net Operating Income	\$ 2,870	\$27,423	\$ 30,293

## REVENUE REQUIREMENTS

Cumberland Falls has proposed to refund its existing FmHA indebtedness with a new bond issuance of \$298,000. In addition, Cumberland Falls plans to retire its existing notes payable with monies included in the contingency reserve contained in the new debt issue. Therefore, all of Cumberland Falls' existing debt and existing interest expense will either be refunded or retired.

Cumberland Falls proposed a Debt Service Coverage ("DSC") of 1.2X on bond interest and principle payments on the new debt issues of \$52,646 per year. The Commission is of the opinion that a 1.2X DSC is appropriate and has used the average of the principle and interest payments over a 5-year period.

Using a 1.2X DSC plus operating expenses, the Commission finds Cumberland Falls' total revenue requirement to be \$261,721. 9
After consideration of test-year interest income of \$3,145, miscellaneous and other water revenue of \$5,444, and adjusted operating revenue from water sales of \$224,588, an increase in annual revenue of \$28,544 from sales of water will be sufficient. The Commission is of the opinion and finds that the revenue granted herein will produce gross annual revenue sufficient to pay Cumberland Falls' operating expenses, service its debt, and provide a reasonable surplus.

The \$450 per month fee and the \$4.50 per month per customer billed fee charged by HKB for management and accounting services provided appear to be high in comparison with fees paid by other utilities for similar services. Donnie Bunch, the Secretary and a commissioner of Cumberland Falls, stated during the hearing that other management firms were not examined in much detail when deciding on a firm. The Commission is of the opinion that Cumberland Falls should renegotiate its contract with HKB or consider other management firms for more cost effective services.

Staff Adjusted Test-Year Operating Expenses \$199,739
ADD:
1.2X (5-Year Average Principle and Interest Requirements)
61,982
\$261,721

<sup>10</sup> Hearing Transcript, March 27, 1986, p. 121.

# FINDINGS AND ORDERS

The Commission, after consideration of the evidence of record and being advised, is of the opinion and finds that:

- 1. The rates proposed by Cumberland Falls would produce revenue in excess of that found reasonable herein and, therefore, should be denied upon application of KRS 278.030.
- 2. The rates in Appendix A are the fair, just and reasonable rates for Cumberland Falls in that they are calculated to produce gross annual revenue from water sales of \$256,224. These revenues will be sufficient to meet Cumberland Falls' operating expenses found reasonable for rate-making purposes, service its debt and provide a reasonable surplus.
- 3. Public convenience and necessity require that the construction proposed in the application and record be performed and that a certificate of public convenience and necessity be granted.
- 4. The proposed construction includes 121 service connections, about 15.0 miles of 6-inch pipeline, about 3.25 miles of 3-inch pipeline, a master meter, a crossing of the Cumberland River and miscellaneous appurtenances. The low bid received for the proposed construction was \$540,165, which will require about \$1,013,000 in project funding after allowances are made for fees, contingencies, other indirect costs and additional construction that can be done because the low bid was \$207,035 under the Engineer's estimate.

- 5. Cumberland Falls should obtain approval from the Commission prior to performing any additional construction not expressly certificated by this Order. A copy of the bid advertisement package for the additional construction should be filed by October 1, 1986.
- 6. Any deviations from the construction herein approved which could adversely affect service to any customer should be done only with the prior approval of this Commission.
- 7. Cumberland Falls should furnish duly verified documentation of the total costs of this construction including all capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date that construction is substantially completed. Said costs should be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for Water Utilities prescribed by this Commission.
- 8. Cumberland Fall's contract with its Engineer should require the provision of full-time resident inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering to insure that the construction work is done in accordance with the contract plans and specifications and in conformance with the best practices of the construction trades involved in the project.
- 9. Cumberland Falls should require the Engineer to furnish a copy of the "as-built" drawings and a signed statement that the construction has been satisfactorily completed in accordance with the contract plans and specifications within 60 days of the date of substantial completion of this construction.

- 10. A 5/8-inch x 3/4-inch meter should be the standard customer service meter for all new customers and should be installed at all points of service unless the customer provides sufficient justification for the installation of a larger meter.
- 11. The FmHA letter of conditions dated June 24, 1983, requires Cumberland Falls to use \$45,000 in applicant contributions to establish an "Initial Operations and Maintenance Reserve Account" ("O & M Reserve Account") to assure continued operation of the system during the first 5 years of operations after completion of construction. On the basis of the record of utility operations by Cumberland Falls, the Commission also finds that the O & M Reserve Account be established in accordance with the FmHA letter of conditions with use of the funds limited to \$9,000 per year. Any balance remaining in this fund after 5 years should be transferred to the Depreciation Reserve Account.
- 12. The \$1,013,000 financing plan proposed by Cumberland Falls is for lawful objects within its corporate purposes and is necessary or appropriate for or consistent with the proper performance of its services to the public and will not impair its ability to perform these services, and is reasonably necessary and appropriate for such purposes and should, therefore, be approved.
- 13. The \$298,000 refinancing plan proposed by Cumberland Falls is for lawful objects within its corporate purposes and is necessary or appropriate for or consistent with the proper performance of its services to the public and will not impair its ability to perform these services, and is reasonably necessary and appropriate for such purposes and should, therefore, be approved.

IT IS THEREFORE ORDERED that:

- 1. The rates proposed by Cumberland Falls are hereby denied.
- 2. The rates and charges in Appendix A are approved for service rendered by Cumberland Falls on and after the date of this Order.
- 3. Cumberland Falls be and it hereby is granted a certificate of public convenience and necessity to proceed with the proposed construction as set forth in the plans specifications of record herein.
- 4. Cumberland Falls' plan of refinancing the existing FmHA debt with a new \$298,000 FmHA bond issuance be and hereby is approved.
- 5. Cumberland Fall's plan of financing consisting of applicant contributions in the amount of \$45,000, a loan from the FmHA in the amount of \$403,000 with an interest rate of 7 1/8 percent and a 40-year term, a grant from the FmHA in the amount of \$560,000 and a \$5,000 grant from the Cumberland Valley Area Development District be and it hereby is approved.
- 6. If under new FmHA loan conditions Cumberland Falls is notified and granted an option to accept a lower interest rate on the date of closing, Cumberland Falls shall file the following with the Commission within 30 days of the date of closing: (1) the FmHA notification of the lower interest rate and all correspondence from and to FmHA concerning this notification; (2) a statement of the interest rate accepted from FmHA; (3) amended pages to its bond resolution and an amended amortization schedule

based on the different interest rate if a different rate is accepted; and, (4) full documentation of why the lower rate was not accepted showing an analysis of the higher costs associated with the loan over the loan's repayment period in the event the option to accept the lower rate is not taken by Cumberland Falls.

- 7. Cumberland Falls shall comply with all matters set out in Findings 6 through 11 as if the same were individually so ordered.
- 8. Within 30 days from the date of this Order, Cumberland Falls shall file with this Commission its revised tariff sheets setting out the rates approved herein.
- 9. Cumberland Falls shall file an application for approval of the additional construction to be performed with the remainder of the funds approved herein by October 1, 1986, including a copy of the bid advertisement package.

Nothing contained herein shall be deemed a warranty of the Commonwealth of Kentucky, or any agency thereof, of the financing herein authorized.

Done at Frankfort, Kentucky, this 14th day of May, 1986.

PUBLIC SERVICE COMMISSION

Vice Chairman

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ATTEST:

#### APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 9440 DATED MAY 14, 1986

The following rates and charges are prescribed for the customers in the area served by Cumberland Falls Highway Water District. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

Rates: Monthly

First 1,000 g	gallons	\$11.10	Minimum Bill
Next 4,000 g	<b>jallons</b>		per 1,000 gallons
Next 5,000 g			per 1,000 gallons
Over 10,000 g	<b>jallons</b>	2.10	per 1,000 gallons

Whitley County Water District \$ 1.25 per 1,000 gallons